

WHAT IS CLAIMED IS:

- 1 1. A method for accessing information in a peer to peer network
- 2 comprising:
 - 3 storing information among a plurality of peer client systems, wherein the
 - 4 information can be accessed by the peer client systems, the information collectively referred
 - 5 to as information sources;
 - 6 storing location information, the location information indicative of the location
 - 7 of each information source, wherein peer client systems can access the location information
 - 8 in order to determine a location of an information source;
 - 9 generating one or more subscriptions, each subscription being associated with
 - 10 an information source and with one or more peer client systems;
 - 11 detecting a modification to an information source, referred to as a modified
 - 12 information source; and
 - 13 if there is a subscription that is associated with the modified information
 - 14 source, then communicating an alert message to each peer client system that is associated
 - 15 with the subscription,
 - 16 wherein each peer client system that receives an alert message can access an
 - 17 information source that is associated with the alert message, a copy of the information source
 - 18 being stored in another peer client system,
 - 19 wherein each peer client system that receives an alert message can access the
 - 20 copy from the other peer client system.

- 1 2. The method of claim 1 wherein a copy of the information source is
- 2 stored in a plurality of second peer client systems, wherein each peer client system that
- 3 receives an alert message can access the copy from any of the second peer client systems.

- 1 3. The method of claim 1 wherein the steps of:
 - 2 storing location information is performed in a first server system, the peer
 - 3 client systems communicating with the first server system to access the location information;
 - 4 generating one or more subscriptions is performed in a second server system,
 - 5 the peer client systems communicating with the second server system to subscribe to one or
 - 6 more information sources; and

7 detecting a modification to an information source comprises communicating to
8 the first server system an indication that a first information source has been modified and
9 communicating to the second server information relating to the first information source,
10 wherein the second server determines if there is a first subscription that is
11 associated with the first information source, and in response thereto communicates an alert
12 message to each peer client system that is associated with the first subscription.

1 4. The method of claim 3 wherein one of the peer client systems that
2 receives the alert message automatically accesses an information source that is associated
3 with the alert message.

1 5. The method of claim 1 wherein the steps of:
2 storing location information is performed in a first server system, the peer
3 client systems communicating with the first server system to access the location information;
4 generating one or more subscriptions is performed in the first server system,
5 the peer client systems communicating with the first server system to subscribe to one or
6 more information sources; and

7 detecting a modification to an information source comprises receiving from a
8 first peer client system an indication that a first information source has been modified,
9 wherein if the first server determines that there is a first subscription that is associated with
10 the first information source, then communicating to the first peer client system a list of
11 second peer client systems that are associated with the first subscription,

12 wherein the first peer client communicates an alert message to each second
13 peer client system.

1 6. The method of claim 5 wherein one of the second peer client systems
2 automatically accesses an information source that is associated with the alert message.

1 8. The method of claim 1 wherein the steps of:
2 storing location information comprises each peer client system storing location
3 information of one or more of the information sources;

4 generating one or more subscriptions is performed in a server system, the peer
5 client systems communicating with the server system to subscribe to one or more information
6 sources; and

7 detecting a modification to an information source comprises communicating to
8 the server system an indication that a first information source has been modified, wherein if
9 the server determines there is a first subscription that is associated with the first information
10 source, then communicating an alert message to each peer client system that is associated
11 with the first subscription.

1 9. The method of claim 1 wherein the steps of:

2 storing location information comprises each peer client system storing location
3 information of one or more of the information sources;

4 generating one or more subscriptions is performed by each peer client system
5 and comprises receiving a subscription request from a first peer client and associating one or
6 more information sources with the first peer client, the one or more information sources
7 identified in the subscription request; and

8 detecting a modification to an information source is performed by each peer
9 client system and comprises receiving an indication that a first information source has been
10 modified and communicating an alert message to each peer client system that is associated
11 with the first subscription if there is a first subscription that is associated with the first
12 information source.

1 10. A peer to peer network for sharing information comprising:

2 a plurality of peer clients, each peer client in communication with other peer
3 clients, wherein each peer client stores information, collectively referred to as information
4 sources, wherein the information sources can be shared among the peer clients;

5 a management server having information indicative of locations of the
6 information sources, the management server configured to communicate with a peer client to
7 provide location information of an information source so that the peer client can access the
8 information source; and

9 a notification server in communication with the management server and
10 configured to receive from peer clients requests for subscriptions to one or more information
11 sources, each such information source referred to as a subscribed information source, and to
12 associate each subscribed information source with one or more peer clients,

13 the management server further configured to receive from the peer clients
14 information indicative of modifications made to one or more of the information sources, each
15 such information source referred to as a modified information source, and to communicate to
16 the notification server first information that identifies one or more of the modified
17 information sources,

18 the notification server further configured to identify one or more first peer
19 clients based on a comparison of the subscribed information sources and the first information,
20 and to communicate an alert message to each of the first peer clients,

21 wherein each first peer client, in response to receiving an alert message, can
22 access a first information source associated with the alert message, the first information
23 source being stored in one or more second peer client systems,

24 wherein each first peer client can access the first information source from any
25 of the one or more second peer client systems.

1 11. The system of claim 10 wherein one of the first peer clients, in further
2 response to receiving an alert message, communicates with the management server to obtain
3 location information for the first information source.

1 14. A computer system for sharing information in a peer to peer network,
2 the computer system configured to:

3 communicate with a management server to obtain location information for an
4 information source, the location information being associated with another peer client;

5 communicate with the other peer client to obtain information relating to the
6 information source:

7 communicate with a notification server to subscribe to one or more first
8 information sources;

9 receive an alert message from the notification server; and

1 15. The computer system of claim 14 wherein the alert message includes
2 information that identifies one or more of the first information sources, referred to as the
3 modified information sources.

1 16. The computer system of claim 15 wherein one or more of the modified
2 information sources is accessed automatically.

1 17. The computer system of claim 15 wherein the computer system is
2 further configured to:

3 display information to a user that indicates receipt of the alert message,
4 including displaying information representative of the modified information sources;
5 receive an indication from the user of a selected one of the modified
6 information sources; and

7 access the selected one of the modified information sources.

1 18. The computer system of claim 14 wherein the alert message includes
2 information that identifies a second information source, the computer system being further
3 configured to determine if the second information source is one of the first information
4 sources, and if so then to access the second information source.

1 19. A system for sharing information in a peer to peer network comprising:
2 a plurality of peer clients, each peer client in communication with other peer
3 clients, wherein each peer client stores information, collectively referred to as information
4 sources, wherein the information sources can be shared among the peer clients; and
5 a management server having information indicative of locations of the
6 information sources, the management server configured to communicate with a peer client to
7 provide location information to an information source so that the peer client can access the

9 the management server further configured to receive requests from peer clients
10 for subscriptions to one or more information sources, each such information source referred

11 to as a subscribed information source, and to associate each subscribed information source
12 with one or more peer clients,

13 the management server further configured to receive information from a first
14 peer client indicative modifications made to one or more of the information sources, each
15 such information source referred to as a modified information source,

16 the management server further configured to identify one or more second peer
17 clients based on a comparison of the modified information source against the subscribed
18 information sources, and to communicate a list that identifies the second peer clients to the
19 first peer client,

20 wherein the first peer client can communicate an alert message to each of the
21 second peer clients,

22 wherein each second peer client, in response to receiving an alert message, can
23 access a first information source associated with the alert message.

1 20. The system of claim 19 wherein one of the second peer clients
2 automatically accesses at least a first information source associated with the alert message.

1 21. The system of claim 19 wherein one of the second peer clients
2 generates a display to inform a user of receipt of the alert message, wherein the user can
3 decide whether to access an information source associated with the alert messag.